Summary

This Amendment is responsive to the Office Action mailed on December 16, 2004. Claims 1 and 24 are amended herein. Claims 1-3, and 5-24 are pending.

The Examiner has indicated that claims 11 and 12 contain allowable subject matter.

Claims 1-3 and 5-10, and 13, 14, 17, 20-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ozkan (US 5,838,686) in view of Rostoker (US 5,446,726) in further view of Vetro (US 6,490,320).

Claims 15-16 and 18-19 were rejected as being unpatentable over Ozkan in view of Rostoker, Vetro, and Rackman (US 5,614,955).

Applicant respectfully traverses these rejections in view of the amended claims and the following comments.

Discussion of Amended Claims

Claims 1 and 24 are amended to specify that each channel is <u>dynamically</u> assigned to the processors based on their complexity (see, e.g., Applicant's specification, page 3, lines 5-8).

Discussion of Cited References

Ozkan discloses an allocation system for processing a plurality of video channels. In Ozkan, each video channel is coupled to a corresponding channel processor 10 (Col. 3, lines 34-40). Each processor 10 includes a complexity output terminal, which are coupled to a bit rate allocator 30 (Col. 3, lines 48-53). The bit rate allocator dynamically adjusts the bit rate quotas for the next quota period among the plurality of channel processors 10 (Col. 4, lines 4-8).

The Examiner indicates that Ozkan discloses the <u>assignment</u> of a channel to a particular processor. Applicant respectfully submits that there is no <u>assignment</u> of a channel to a particular processor (based on complexity or any other criteria) in Ozkan, as is performed with the present invention. Instead, with Ozkan, each channel is associated with a particular processor <u>by design</u>. In other words, the association of channel to processor is <u>pre-determined</u> in Ozkan. As shown in Figure 1 of Ozkan, channel 1 feeds directly into the first processor, channel 2 feeds directly into

the second processor, and so on. Ozkan does not disclose or remotely suggest assigning channels to a particular processor as claimed by Applicant.

Further, since each of the channels is directly associated with a predetermined processor in Ozkan, a channel cannot be dynamically assigned to a processor as is set forth in amended claims 1 and 24. In addition, the Examiner has acknowledged that Ozkan does not disclose assigning a channel to a processor based on a complexity of the channel, as claimed by Applicant (Office Action, page 3, line 1).

The Examiner has also indicated that Ozkan discloses "maintaining a running balance of an accumulated complexity for each processor according to the complexity of the channel(s) assigned thereto." Applicant respectfully disagrees with the Examiner's characterization of Ozkan. In Ozkan, the complexity output from each processor in Ozkan is used by the bit rate allocator 30 to adjust the bit rate of each processor. This bit rate adjustment in Ozkan is made on the complexity of all the processors combined together (Col. 4, line 6). In contrast, Applicant's claimed invention maintains a running balance of an accumulated complexity for each processor. Further, there is no disclosure or suggestion that the bit rate allocator in Ozkan maintains a running balance of accumulated complexity as claimed by Applicant.

In addition, Applicant's claimed invention allows each channel to be assigned to at least one processor. Therefore, each channel may be assigned to more than one processor. Likewise, more than one channel may be assigned to a processor. Such a result is not possible with the design of Ozkan, which requires that a single channel be associated with a single predetermined processor.

Ozkan does not disclose or remotely suggest the assignment of channels to processors in an order that is based on the channels' complexity such that channels with relatively high complexity are assigned before channels with relatively low complexity, as claimed by Applicant.

The Examiner relies on Rostoker as disclosing "a channel priority algorithm that 'assigns channels with a high complexity before channels with a low complexity' (Rostoker: column 28, lines 25-40, wherein the complexity is the channel priority)" (Office Action, page 3). Applicant

respectfully submits that the cited passage of Rostoker does not disclose or suggest assigning channels to processors based on a complexity of the channel. Column 28, lines 25-40 of Rostoker indicates only that software can use the CGCR (Channel Group Credit Register) 58b to implement channel priority. The CGCR 58b of Rostoker merely indicates when a channel has timed out (Col. 25, lines 65-67). As discussed in the passage relied on by the Examiner, the APU 52 of Rostoker can read CGCR 58b periodically during the servicing of a lower priority channel group to see if a higher priority channel group has timed out, and if so, the APU 52 can suspend servicing of the lower priority channel group, and begin servicing the higher priority channel group (Col. 28, lines 30-37).

Thus, contrary to the Examiner's assertions, Rostoker does not disclose or remotely suggest assigning a channel to a processor, such that channels with relatively high complexity are assigned to a processor before channels with relatively low complexity, as set forth in Applicant's claims. There is simply no discussion of assigning channels to processors based on complexity in Rostoker.

Applicant acknowledges that Vetro discloses transcoding as indicated by the Examiner. However, Vetro does not cure the deficiencies of Ozkan and Rostoker noted above.

Accordingly, as the combination of Ozkan, Rostoker, and Vetro does not disclose or suggest each and every claimed element, there is no *prima facie* case of obviousness. In particular, there is no disclosure or suggestion in any of the cited references to dynamically assign channels to processors such that channels with relatively high complexity are assigned to processors before channels with relatively low complexity, as claimed by Applicant. Further, there is no disclosure or suggestion in any of the cited references of maintaining a running balance of an accumulated complexity for each processor according to the complexity of the channel(s) assigned thereto, as claimed by Applicant. Only with hindsight impermissibly gained from Applicant's disclosure could one of ordinary skill in the art arrive at the claimed invention from the disclosures of Ozkan, Rostoker and Vetro.

Further, there is no motivation for one skilled in the art to combine the references as suggested by the Examiner. Ozkan is directed towards an allocation system for processing a

plurality of video channels carried in a multiplex, wherein the bit rate quota for the multiplex is allocated among a plurality of processors based on the total complexity of all the channels being processed. Vetro discloses an apparatus for transcoding compressed video streams. Rostoker is directed towards an ATM communication system, in particular <u>an error correction and detection apparatus for an ATM network device</u>. Applicant respectfully submits that one skilled in the art would not look to the Rostoker to improve or modify the video channel processing system of Ozkan or the video transcoding system of Vetro.

Applicant respectfully submits that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Ozkan, taken alone or in combination with any of the other prior art of record.
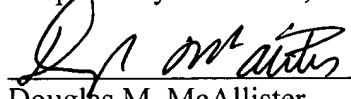
Further remarks regarding the asserted relationship between Applicant's claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicant's silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

    The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicant's undersigned attorney.

                                          Respectfully submitted,

                                          Douglas M. McAllister
                                          Attorney for Applicant(s)
                                          Registration No.: 37,886
                                          Lipsitz & McAllister, LLC
                                          755 Main Street
                                          Monroe, CT 06468
                                          (203) 459-0200

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